

## REMARKS

### SECTION 102 REJECTION OF CLAIM 1

*Boppart* fails to teach a housing with both “a rotatable distal face and a stationary proximal face”

Claim 1 recites

“a housing with

- a rotatable distal face *and*
- a stationary proximal face.”

The Office Action proposes numerous structures as candidates for a “rotating distal face.” However, the Office Action does not indicate where the “stationary proximal face” is found. Applicant notes that the “stationary proximal face” and the “rotating distal face” must belong to the *same* housing.

A section 102 rejection requires that each and every limitation in the claim be disclosed in the cited reference. If even one limitation is missing, the section 102 rejection is improper.

In this case, the Office has failed to identify in *Boppart* a housing that has *both*

- a rotating distal face *and*
- a stationary proximal face.

It is quite apparent therefore that the Office has failed to identify each and every limitation in *Boppart*. Therefore, the section 102 rejection fails for this reason alone.

*Boppart* fails to teach a distal face with both an eccentric port and a central port

There is yet another separate and independent reason that the section 102 rejection is improper.

Claim 1 includes the limitation that the “rotatable distal face” have *both*

- an eccentric port, *and*
- a central port

The Office appears to regard the “central port” as being disclosed by *Boppart*’s FIG. 21a. Specifically, the Office regards the window 324 as being a port in the distal face of the housing.

It is clear from inspection of FIG. 21a that the window 324 is not even on the *distal face* of any housing. In fact, the window 234 is not even on the *face* of a housing. The window 324 looks out *sideways*. Therefore, this window 324 cannot possibly meet a claim limitation of a port in the *distal face* of any housing.

Claim 1 recites a housing with a “rotatable distal face” that has *both* an eccentric port *and* a central port. FIG. 21a fails to show any such a housing.

The Office also suggests that a housing with a “rotatable distal face” that has *both* an eccentric *and* central port thereon can be found in *Boppart*’s col. 32, lines 33-54. However, this passage merely refers to the fact that “[m]ultiple imaging ports (not shown) could also be used.” This does not amount to a teaching of “a rotatable distal face...having an eccentric port and a central port” as recited in claim 1.

The Office also draws attention to *Boppart* col. 14, lines 44-50, which describes FIG. 8b. FIG. 8b shows a housing 50 with a distal face covered by a transparent window. Since the entire distal face is one big “port”, it is simply not possible for there to *both* a “central port” *and* an “eccentric port.” Moreover, the distal face of the housing 50 does not appear to be a “rotatable distal face.”

FIG. 8b shows a rotating cable having a distal face. However, the distal face of the cable is completely covered by a pair of rotating prisms. Again, there cannot possibly be *both* “eccentric port” and “central port” at the distal end of this rotating cable.

The Examiner refers at various points to FIGS. 8a-8d. These figures show a housing that have distal faces. But in every case, the distal face has only a single port that covers the entire distal face. Thus, the embodiments shown in FIGS. 8a-8d are all inconsistent with claim 1's limitation of "a housing with a rotatable distal face. . .having an eccentric port *and* a central port."

A proper section 102 rejection requires that the cited art teach each and every claim limitation. In this case, *Boppart* fails to teach "a rotating distal face" with both "an eccentric port" and "a central port." Accordingly, the section 102 rejection is improper.

***Boppart* fails to teach "a lens disposed inside the housing"**

The Office Action suggests that lens 62 in FIGS. 6a-6f corresponds to claim 1's "lens disposed inside the housing to intercept a rotating collection beam emerging from the eccentric port."

First of all, in FIGS. 6a-6f, the lens 62 is inside the cylindrical enclosure. Therefore, if the lens 62 corresponds to the claimed lens, then, in order to meet the limitation of "a lens disposed inside the housing," the "housing" must be the cylindrical enclosure. But the cylindrical enclosure does not appear to have the required "rotatable distal face" and "stationary proximal face" recited in the first paragraph of claim 1. Therefore, the lens 62 fails to meet the claim limitation.

***Boppart* fails to teach a lens that intercepts a rotating beam**

Claim 1 also requires that the lens "intercept a rotating collection beam."

As explained above, the Office appears to regard lens 62 in FIGS. 6a-6f as corresponding the "lens" recited in claim 1.

However, the beams that pass through the optical fibers shown in FIGS. 6a-6f do not rotate, they reciprocate. The same appears to be the case for FIGS. 7a-7f.

Although the Office has not drawn attention to the rotating cables in FIG. 8a and 8b, Applicant pre-emptively points out that beams emerging from those structures exit through the axis of rotation. Therefore, the beams do not rotate, they are in fact stationary.

***Boppart fails to show the "beam re-director"***

According to claim 1, the "beam re-director" must be "disposed between the lens and the distal face" of the housing.

The Office suggests that the beam re-director corresponds to the prism 328 in FIG. 21a. But if this is the case, then where is the lens that enables the prism 328 to meet the limitation of being "disposed between the lens and the distal face"?

The Office drew attention to lens 62 in FIGS. 6a-6f. But those are completely different structures from that shown in FIG. 21a. One cannot choose an element from one structure and transplant it into another, completely different structure in the same reference.

***Boppart fails to show a beam re-director "oriented to direct a delivery beam toward the central port"***

The prism 328 appears to be oriented to direct a beam sideways toward a port in the wall of a rotating shaft. This port is not a "central port" of a distal face of a housing as required by claim 1.

**SECTION 10 REJECTION OF CLAIM 10**

Claim 10 includes all the limitations of claim 1. Accordingly, Applicant re-asserts all the arguments set forth above in connection with claim 1.

In addition, claim 10 recites the additional limitation of "a rotating catheter" through which extends *both* "a collection fiber and a delivery fiber."

The Office draws attention to FIGS. 8a-8d as teaching a rotating catheter "through which extends *both* "a collection fiber and a delivery fiber."

However, FIGS. 8a-8d show structures that have only one fiber each. Claim 10 requires two fibers, not one. Therefore, none of FIGS. 8a-8d can possibly teach the claim limitation of "a rotating catheter having a collection fiber *and* a delivery fiber extending therethrough."

#### **SECTION 102 REJECTION OF CLAIMS 2 AND 11**

Claim 2 recites "a light source disposed to direct a delivery beam radially inward to the beam redirector."

The Office suggests that *Boppart* FIG.22 shows this light source.

As best understood, the microchip 344 in FIG. 22 is believed to meet the limitation of claim 2's light source. However, the microchip does not appear to direct any beam "radially inward" as required by claim 2.

*Boppart*'s claim 8 recites a light source. But there is no suggestion in claim 8 that the light source directs a beam "radially inward."

Claim 11 includes limitations similar to claim 2 and is patentable for at least the same reasons.

#### **SECTION 102 REJECTION OF CLAIMS 3 AND 12**

Claim 3 requires that the beam re-director comprise "a penta-prism."

The Office draws attention to *Boppart*'s teaching of prisms at col. 14, lines 51-52. However the cited text refers to a "circular prism" and "a second prism".

The Office has not shown that a "circular prism" is the same as a "penta-prism".

The Office has also not shown that "a second prism" is a "penta-prism"

Accordingly, the section 102 rejection of claim 3 is improper.

Claim 12 recites limitations similar to claim 3 and is patentable for at least the same reasons.

#### SECTION 102 REJECTION OF CLAIMS 6 AND 15

Claim 6 recites the additional limitation of "a detector disposed at the focus for receiving the rotating collection beam."

The Office cites two passages as allegedly teaching this limitation.

The first passage, col. 14, lines 21-43, describes FIGS. 8a-8d. There appears to be no mention of detectors in this passage.

The second passage, col. 32, lines 33-54, describes the tissue grinding catheter of FIG. 21a(ii). This passage does not appear to mention any detector.

#### SECTION 102 REJECTION OF CLAIMS 6 AND 7

Claims 6 and 7 recite limitations on where the lens is configured to focus the collection beam. In claim 6, the focus is on an axis of rotation of the distal face, whereas in claim 7, the focus is off the axis of rotation of the distal face.

The Office Action says nothing at all about where the foregoing limitation is taught. Accordingly, the section 102 rejection of claims 6 and 7 appears to be improper.

#### SECTION 102 REJECTION OF CLAIMS 9 AND 16

Claims 9 and 16 recite the limitation of a lens that comprises an "axicon lens."

In rejecting the claim, the Office asserts that axicon lenses are known in the art and therefore the lens 62 of *Boppert* could just as well have been an axicon lens.

Applicant submits that this reasoning is improper. A section 102 rejection require that the reference teach every limitation in the claim. The fact that a reference teaches the use of a particular lens does not mean that it teaches the use of every possible lens.

*Boppert* does not teach an axicon lens. Applicant agrees that it *could have* taught an axicon lens, but the fact is that it did not. According to section 102, anticipation requires that the invention be "described in a printed publication," not that the invention "could have been

described in a printed publication." Therefore, the section 102 rejection of claims 9 and 16 is improper.

## DOUBLE PATENTING REJECTION

The Examiner's remarks suggest a misunderstanding of the concept of double-patenting. A double-patenting rejection is only proper when two claims recite the same, or essentially the same, subject matter. The fact that one claim dominates another is insufficient to support a double-patenting rejection. In recognition of the confusion between domination and double-patenting, the MPEP advises Examiners that

"[D]omination and double patenting should not be confused. They are two separate issues. One patent or application "dominates" a second patent or application when the first patent or application has a broad or generic claim which fully encompasses or reads on an invention defined in a narrower or more specific claim in another patent or application. Domination by itself, i.e. in the absence of statutory or non-statutory double patenting grounds, cannot support a double patenting rejection."<sup>1</sup>

In terms of sets, if claim A recites elements  $(a, b, c)$  and claim B recites elements  $(a, b, c, d)$  then a double-patenting rejection would be improper unless it was somehow obvious to add element  $d$ .

The Office Action states that claims in U.S. Patent No. 6,895,137 "anticipate the claims in the current application." The Office then states that "[t]he patented claims include additional structural limitations" and that these patented claims are "more specific than the current application claims."

It is not clear what exactly the Examiner means by one claim "anticipating" another. Applicant speculates that what the Examiner means is that if claim A recites elements  $(a, b, c)$  and claim B recites elements  $(a, b, c, d)$  then claim A "anticipates" claim B. If so, then the Examiner is actually referring to domination of one claim by another.

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<sup>1</sup> MPEP 804(II)

However, as discussed in the above section from the MPEP, a double-patenting rejection requires more than that one claim "anticipate" or "dominate" another. A double-patenting rejection requires that two claims recite essentially the same subject matter.

The present double-patenting rejection involves two issued patents and one application. Because of the huge number of combinations possible, Applicant requests that the identify the claims that are believed to recite obvious variants of the same invention, and some basis for suggesting that the variants are in fact obvious ones.

#### SUMMARY

Now pending in this application are claims 1-16, of which claims 1 and 10 are independent. No fees are believed to be due in connection with the filing of this amendment. However, to the extent fees are due, or if a refund is forthcoming, please adjust our deposit account 06-1050, referencing Attorney Docket No. 12258-036001.

Respectfully submitted,

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